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A REDESCRIPTION OF THE ANT *LEPTOTHORAX OCEANICUS* (HYMENOPTERA, FORMICIDAE)

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Переопис виду *Leptothorax oceanicus* (Hymenoptera, Formicidae). Радченко О. Г., Хайнце Ю. — Наведено опис неотипу (робітник), та переопис самки *Leptothorax oceanicus* (Kuznetzov-Ugamskij, 1928). Описаний як підвид *L. muscorum* Nyl., *L. oceanicus* відрізняїться від останнього нечисельними відлеглими волосками на голові та грудях, а також трикутним, загостреним на вершині вузликом петіолюса. *L. oceanicus* подібний до неарктичного *L. retractus* Francoeur, 1986, від якого відрізняється відсутністю виріза на передньому краї кліпеуса та коротшими шипами проподеума.
К л ю ч о в і   с л о в а: Hymenoptera, Formicidae, мурашки, систематика, *Leptothorax*.

A Redescription of the Ant *Leptothorax oceanicus* (Hymenoptera, Formicidae). Radchenko A. G., Heinze J. — The neotype (worker) and a queen of *Leptothorax oceanicus* (Kuznetzov-Ugamskij, 1928) are described. Originally described as a subspecies of *L. muscorum* Nyl., *L. oceanicus* differs from the latter by sparse erect hairs of head and alitrunk, and by triangular petiole with an acute angle at the node. *L. oceanicus* is similar to nearctic *L. retractus* Francoeur, differing in the absence of the notch on the anterior clypeal margin and shorter propodeal spines.
K e y   w o r d s: Hymenoptera, Formicidae, ants, taxonomy, *Leptothorax*.

Introduction. The ant genus *Leptothorax* includes more than 300 species distributed throughout the World, except Australia. Of the approximately 200 species known from Holarctic Region (Bolton, 1995 a, b), most belong to the subgenus *Myrafant* M. R. Smith, whereas the subgenus *Leptothorax* (s. str.) (formerly *Mychothorax* Ruzsky) contains less than 15 described species. In the Palaearctic region, *Leptothorax* (s. str.) includes three well-studied species: *L. acervorum* (Fabricius, 1793), *L. muscorum* (Nylander, 1846), and *L. gredleri* Mayr, 1855. A fourth species, *L. scamni* Ruzsky, 1905 from Caucasus and Northern Turkey was redescribed few years ago (Heinze et al., 1993). A fifth taxon, *L. oceanicus* (Kuznetzov-Ugamskij, 1928) was originally described as a subspecies of *L. muscorum*, based on a single worker from Okeanskaya railway station near Vladivostok in Far East Russia (Primorsky Kray). In the treatise on the ants of the Far East of the USSR, Kupianskaya (1990) briefly mentioned workers and a wingless ("ergatoid") queen of this taxon. Recently (Heinze et al., 1993) *L. oceanicus* (as *L. oceanicum*) raised to species level, and a neotype designated (Radchenko, 1994 b), but without redescription of the species.

Two socially parasitic species, origanally described in subgenus *Leptothorax* (s. str.) (Buschinger, 1966; Kutter, 1967), are considered now as the members of the genus *Doronomyrmex* Kutter (Bolton, 1995 a).

Original description (Kuznetzov-Ugamskij, 1928: 29-30; translated from Russian): "*Mychothorax muscorum oceanicum* subsp. nov. Worker. Described form differs from typical *Mychothorax muscorum* firstly in its body pilosity, which is, on in whole, much sparser. Tibiae without hairs, only femora with some erect hairs. Propodeal spines about half as long as the horizontal part of propodeum. Erect hairs on body rare, shorter than in *M. muscorum*, blunt at the tip. Petiole without a cylindrical part, with sharply angulate top, its upper angle more acute than in typical form. Petiole ventrally with a rounded projection, which wider than in typical form. Coloration reddish-brown: head, abdomen, thickened parts of femora and 3-jointed club dark brown. Body length 2,8 mm. The described form well differs from *M. hirticornis* Em. in many characters and body pilosity. On the other hand, it is also well distinguished from M. muscorum and may probably be considered as a higher taxon, but I cannot described it as such so because I have only one worker. Station Okeanskaya."

Leptothorax oceanicus (Kuznetzov-Ugamskij, 1928)

Kuznetzov-Ugamskij, 1928: 29-30, worker (*Mychothorax muscorum oceanicum*), Ussurijsky Distr., St. Okeanskaya, Holotype lost; 1929: 30; Kupianskaya, 1990: 140, worker, queen ("ergatoid") (*Leptothorax muscorum oceanicum*); Heinze, Schulz, Radchenko, 1993: 177 (*Lepthothorax oceanicum*); Radchenko, 1994a: 147; 1994b: 25; Bolton, 1995a: 242 (*Lepthothorax oceanicus*).

Description of the worker. Neotype worker: "Приморский край, Супутинский з-к, долина р. Майха, 25.V.1967 (Тихомирова)" [Primorsky Kray, Suputinsky Natural Reserve, valley of Maykha, 25.05.1967 (leg. Tichomirova)], deposited at the Zoological Museum of Moscow State University. Description of the worker (Fig. 1, *a*, *b*). Total length appr. 3.1 mm, head length (excluding mandibles) (HL) 0.69, head width (behind eyes) (HW) 0.60, scape length (SL) 0.42, maximum eyes diameter (OL) 0.15, alitrunk length (AL) 0.97 mm.

Head subrectangular [CI=(HW:HL)x100 = 87], with a straight occipital margin, broadly rounded occipital corners and slightly convex sides. Antenna 11-segmented, with a 3-jointed apical club; scape short, thick, does not reach occipital margin of the head [SI=(SL:HW)x100 = 70]. Anterior clypeal margin straight, without a notch. Promesonotal suture indistinct from above, mesopropodeal impression shallow. Propodeum with acute triangular spines. Petiole without anterior cylindrical part, its anterior and posterior surfaces straight, petiolar node in profile triangular, acute on the top. Head, alitrunk, petiole and postpetiole densely punctured, dull, frons and pronotum punctured and finely longitudinally striate; sides of clypeus and mandibles not punctured, longitudinally rugulose, shining. Frontal plate and gaster smooth and shining. Legs and scape without erect hairs. Head, alitrunk, petiole and postpetiole with sparse, straight, thick, blunt hairs. Alitrunk, antennae, mandibles and legs brownish-yellow, head and gaster brown.

Material examined: 14 specimens collected at different places of Primorsky Kray (Suvorovo) and Amursky District (Zeja) and Northeastern China (Chang Bai Shan, Jilin prov., collected in June 1990 by W. Herrmann, forwarded to us by A.

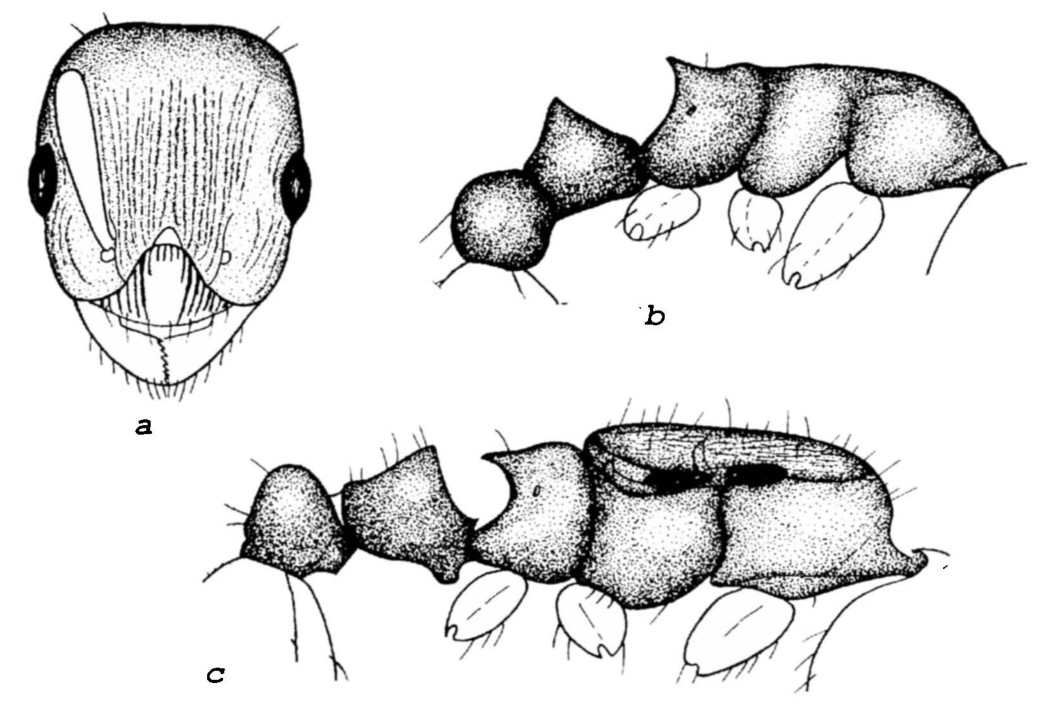


Fig. 1. ***Leptothorax oceanicus***, worker (neotype, *a*, *b*) and female (*c*): *a* — head in full face view; *b*, *c* — alitrunk and pedicel in profile.

Schulz) resemble the neotype. Some of them differ in having more erect hairs on head and alitrunk, which are, however, much less abundant than at *L. muscorum*. Measurements and indices vary as follows in these specimens: HL 0.66-0.70, HW 0.56-0.60, SL 0.39-0.43, OL 0.14-0.16 mm; CI 83-87, SI 68-72.

Description of the queen (Figs. 1, *c*). Total length appr. 3.9-4.0 mm, HL 0.67-0.69, HW 0.57-0.59, SL 0.45-0.46, OL 0.17-0.18, AL 0.99-1.03 mm, alitrunk height (in profile from dorsum to lower base of mesopleurae) (AH) 0.47-0.50; total length of scutum and scutellum from above (SCL) 0.66-0.73, scutum width from above (SCW) 0.43-0.50 mm; indices: CI and SI are as in workers.

Head subrectangular (CI 85-87), with slightly concave occipital margin, broadly rounded occipital corners and parallel sides. Antenna 11-segmented, with a 3-jointed apical club; scape short, thick, does not reach occipital margin of head, but somewhat longer than in the workers (SI 77-79). Anterior clypeal margin slightly convex, without a notch. Shape of alitrunk similar to that of queens of other Leptothorax (s. str.) species. Propodeal spines acute, triangular, longer than in workers. Shape of petiole and postpetiole as in workers. Head, alitrunk, petiole and postpetiole densely punctured, dull, frons and scutum punctured and finely longitudinally striate; frontal plate and clypeus with very fine, superficial punctures, gaster smooth and shining. Legs and scapes without erect hairs, only with decumbent pubescence. Erect pilosity on head, alitrunk, petiole and postpetiole similar to that in workers, but more abundant. Alitrunk, sides of the head, antennae, mandibles and legs ochreous-brown, frons, occiput and gaster brown.

Material examined: 4 queens collected in Primorsky Kray (Suputinsky Natural Reserve; Suvorovo) and Amursky District (Zeja), deposited at the Zoological Museum of Moscow State University, Moscow, Russia, and Institute of Zoology, Ukrainian National Academy of Sciences, Kiev, Ukraine.

Diagnosis. *L. oceanicus* differs from *L. muscorum* mainly in its triangular petiole, which posterior and anterior margins in lateral view form an acute angle at the node, and sparse erect hairs on head and alitrunk. *L. oceanicus* closely resembles the nearctic *L. retractus* Francoeur, 1986 by the shape of its petiole and pilosity, clearly differing in the absence of a notch on the anterior clypeal margin and a distinct promesonotal suture, in shorter propodeal spines, etc. Kuznetzov-Ugamskij (1928, 1929) and Kupianskaya (1990) compared *L. oceanicus* to *L. hirticornis* Emery, based on the Ruzsky's description of the letter species. However, *L. hirticornis* sensu Ruzsky (1905) is a synonym of *Formicoxenus sibiricus* (= *Leptothorax sibiricus* Forel, 1889, = *Formicoxenus orientalis* Dlussky, 1963) (Francoeur et al., 1985). *L. oceanicus* differs from *L. acervorum* by the absence of erect hairs on legs and scapes.

Biology. *L. oceanicus* appears to be a rather rare ant occuring in deciduous forests in the southern part of the Russian Far East and North-East China. Nests are built in logs and tree stumps (Kupianskaya, 1990).

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ЗАМЕТКИ

Вспышка численности кровавого клеща *Rhipicephalus sanguineus* (Ixodidae) на Керченском полуострове. [Nebogatkin I. V., Tovpinets N. N. Outbreak the density *Rhipicephalus sanguineus* (Ixodidae) in Crimea (Kertch)]— В июне 1993 г. на северо-западе Керченского п-ва на территории, ограниченной населенными пунктами Ленино–Семеновка–Мысовое–Песчаное–Астанино, во время учетов иксодовых клещей на флаг отловлено 100 экз. *R. sanguineus*, 5 экз. I. ricinus, 4 экз. *H. punctata*, 1 экз. *D. marginatus* (16 флаго-километров). Личинок и нимф *R. sanguineus* при тщательном исследовании диких и домашних собак, их будок и "логовищ" не обнаружено. Численность *R. sanguineus* во время обследования колебалась в пределах 1–15 флаго-часов, при средней 6,78. Отмечены случаи нападения половозрелых клещей этого вида на людей. Вспышка численности имаго связана с увеличением численности беспризорных собак и погодными условиями 1992–1993 гг., которые способствовали выживанию, развитию, сокращению времени метаморфоза предимагинальных стадий кровавого клеща и способствовали сохранению яиц. Дикие собаки получили возможность устраивать "логовища" не только в зрелых лесопосадках, примыкающих к населенным пунктам, но и в заброшенных домах этих населенных пунктов, владельцы которых или уехали, или умерли. Подобная вспышка численности кровавого клеща наблюдается на территории Украины впервые. Учитывая все увеличивающееся из года в год количество бродячих собак, можно предположить, что возрастет и численность *R. sanguineus*, а это может привести к случаям заболеваний людей Марсельской геморрагической лихорадкой. — **И. В. Небогаткин** (Украинский центр государственного санитарно-эпизоотологическрго контроля), **Н. Н. Товпинец** (Республиканская санэпидстанция автономной Республики Крым).